(a) about 20 to about 60 mole percent based on the total moles of aromatic dicarboxylic acid or ester, of one or more of isophthalic dicarboxylic acid or an alkyl diester thereof,

(b) about 40 to about 80 mole percent based on the total moles of aromatic dicarboxylic acid or ester, of one or more of terephthalic acid, an alkyl diester thereof, 2,6-naphthalene dicarboxylic acid, or an alkyl diester thereof,

(c) about 10 to about 60 mole percent based on the total moles of dicarboxylic acid or ester, of one or more aliphatic dicarboxylic acids or an alkyl diester thereof,

(d) about 0.1 to about 5 mole percent based on the moles of total dicarboxylic acid or ester, of one or more alkali or alkaline earth metal salts of 5-sulfoisophthalic dicarboxylic acid or an alkyl diester thereof,

(e) about 90 to 100 mole percent based on the total amount of glycols, of one or more aliphatic glycols, and

(f) 0 to about 10 mole percent based on the total amount of glycols of one or more of di(ethylene glycol) and tri(ethylene glycol);

said copolyester being insoluble in water and soluble in polar organic solvents.

11. A method of improving the biodegradability and polar solvent solubility of a polyester, comprising forming the polyester from

(a) about 20 to about 60 mole percent based on the total moles of aromatic dicarboxylic acid or ester, of one or more of isophthalic dicarboxylic acid or an alkyl diester thereof,

(b) about 40 to about 80 mole percent based on the total moles of aromatic dicarboxylic acid or ester, of one or more of terephthalic acid, an alkyl diester thereof, 2,6-naphthalene dicarboxylic acid, or an alkyl diester thereof,

(c) about 10 to about 60 mole percent based on the total moles of dicarboxylic acid or ester, of one or more aliphatic dicarboxylic acids or an alkyl diester thereof,

(d) about 0.1 to about 5 mole percent based on the moles of total dicarboxylic acid or ester, of one or more alkali or alkaline earth metal salts of 5-sulfoisophthalic dicarboxylic acid or an alkyl diester thereof,

(e) about 90 to 100 mole percent based on the total amount of glycols, of one or more aliphatic glycols, and

(f) 0 to about 10 mole percent based on the total amount of glycols of one or more of di(ethylene glycol) and tri(ethylene glycol);

such that said polyester is insoluble in water and soluble in polar organic solvents.

12. A method of forming a film or coating that comprises solvent casting or solvent coating a polyester comprising:

(a) about 20 to about 60 mole percent based on the total moles of aromatic dicarboxylic acid or ester, of one or more of isophthalic dicarboxylic acid or an alkyl diester thereof,

(b) about 40 to about 80 mole percent based on the total moles of aromatic dicarboxylic acid or ester, of one or more of terephthalic acid, an alkyl diester thereof, 2,6-naphthalene dicarboxylic acid, or an alkyl diester thereof,

(c) about 10 to about 60 mole percent based on the total moles of dicarboxylic acid or ester, of one or more aliphatic dicarboxylic acids or an alkyl diester thereof,

(d) about 0.1 to about 5 mole percent based on the moles of total dicarboxylic acid or ester, of one or more alkali or alkaline earth metal salts of 5-sulfoisophthalic dicarboxylic acid or an alkyl diester thereof,

(e) about 90 to 100 mole percent based on the total amount of glycols, of one or more aliphatic glycols, and

(f) 0 to about 10 mole percent based on the total amount of glycols of one or more of di(ethylene glycol) and tri(ethylene glycol);

said polyester being insoluble in water and soluble in polar organic solvents.

Please cancel claim 5.

STATUS OF THE CLAIMS

Claims 1-12 were pending in the Application prior to the present amendment. Claims 1, 11 and 12 are being amended.

Claim 5 is being canceled.

REMARKS

Claim 1 is being amended to recite that the claimed copolyester is "substantially insoluble in water and soluble in polar organic solvents". This amendment introduces no new matter, and merely incorporates into claim 1 the subject matter of original claim 5. Claim 5 has therefore been canceled.

Applicant thanks the Examiner for recognizing patentable subject matter in claim 5 and for indicating that claim 5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. For simplicity, Applicant has amended claim 1 to recite the subject matter originally recited in claim 5. Therefore, Applicant submits that claim 1 and all claims dependent therefrom are in condition for allowance.

Claims 11 and 12 are being amended to recite that the claimed copolyester and polyester are "insoluble in water and soluble in polar organic solvents". This amendment introduces no new matter and is supported in the application as filed, *inter alia*, in claim 5 and in the specification on page 5, lines 30-33.

Rejections under 35 U.S.C. § 102(b)

Claims 1-4 and 6-12 were rejected under 35 U.S.C. § 102(b) as being anticipated by Schade, U.S. Patent No. 4,104,262. In view of the Examiner's

statement in the Office Action of November 1, 2002 that claim 5 would be allowable if rewritten and the present amendment to claim 5, Applicant respectfully submits that the rejection of claim 1 and claims dependent therefrom in view of Schade has been obviated and that claims 1 through 10 are now in condition for allowance.

Claims 11 and 12 were also rejected under 35 U.S.C. § 102(b) as being anticipated by Schade. Claim 11, as amended, recites a method for improving the biodegradability and polar solvent solubility of a polyester, such that the polyester is insoluble in water and soluble in polar organic solvents. Claim 12, as amended, recites a method of forming a film or coating, comprising solvent casting or solvent coating a polyester that is insoluble in water and soluble in polar organic solvents. Applicants respectfully submit that claims 11 and 12 are now in condition for allowance. Applicants further submit that Schade neither discloses, teaches, nor suggests a copolyester having an inherent viscosity of equal to or greater than about 0.3 dL/g, which is insoluble in water and soluble in polar organic solvents. In contrast, Schade teaches that the "molecular weights of the resins are, for practical reasons, to be as low as possible, i.e., in a range below 3000, preferably below 2000". Such low molecular weights would not be expected by a person of ordinary skill in the art to indicate inherent viscosities equal to or greater than about 0.3 dL/g as recited in the present claims. As illustrated by the Mark-Houwink equation, in which the intrinsic viscosity of a polymer is related to its molecular weight as follows:

$$IV = K + Mv^a$$

in which K and a are constants, a higher inherent viscosity correlates with a higher molecular weight. Higher molecular weights and higher viscosities are also desirable for applications such as film formation, as disclosed in the present application, *inter alia*, on page 3, lines 25-26. In particular, the low molecular weight materials disclosed by Schade are described as "brittle" (see, e.g., column 5, lines 63-64). Thus, Schade neither discloses, teaches, nor suggests the presently claimed invention.

CONCLUSION

In view of the present amendments and the above Remarks, Applicants respectfully submit that claims 1-4 and 6-12 are allowable over Schade. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. § 102(b) and prompt favorable action are respectfully requested.

Respectfully Submitted,

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